

Technology in Rural Transportation



A recent study documented more than eighty proven, cost-effective, “low-tech” solutions to rural transportation needs, most developed or implemented by local transportation professionals. One of these solutions is outlined below:

Learn all about the simple solutions on the Internet at <http://inform.enterprise.prog.org>

The simple solutions report is available from Hau To at (503) 892-2533, or email: to@crc-corp.com

Automated Anti- / De-Icing on Underpasses

Overall goal:

The goal of this NCHRP-Idea project is to enable remote application of anti- and de-icing fluids to an underpass.

Technical approach:

This system uses a variety of atmospheric and pavement sensors to detect when anti- and de-icing fluids should be applied to an underpass. The application is performed automatically when required using spray equipment mounted on the bridge parapet above. The system reports to maintenance personnel when fluids have been applied. Maintenance personnel can call into the system using cell-phones to override the sensors and activate the fluid application. It is also possible to call into the system to monitor its current status and to obtain readings from the sensors.

Current status:

The hardware was installed in the fall of 1996 for system pilot testing during the 1996-1997 winter season.

Location / geographic scope:

The system is being tested on an underpass on I-215 in Utah.

Agencies involved:

Utah DOT Maintenance Planning Region 2, FHWA, University of Utah

Cost information:

The cost of the system hardware is between \$20,000 and \$25,000.

Key contacts:

Doug Anderson, UDOT Research. (801) 965-4377

Have goals been achieved?

Due to mild winters and lack of funding, tests are still needed to ensure that the system runs automatically.

Solution timeline:

Severe weather is needed to complete the testing and obtain results. This



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Solution status:

project should be completed in mid-2001. Plans for implementation will be based on the results available at that time.

Mild winters have not given information needed to complete testing. System will be tested for two more winters or until funding is still available. Similar systems are being used in European countries.

